UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,064	08/17/2001	Satoshi Arakawa	Q63766	2592

7590 10/08/2003

SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3213

EXAMINER	
LEE, SHUN K	

ART UNIT	PAPER NUMBER
2878	

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	09/931,064	ARAKAWA, SATOSHI	
	Examiner	Art Unit	
	Shun Lee	2878	

-- Th MAILING DATE of this communication appears on the cov r sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 August 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: on pg. 14, "lowered" in line 2 and in line 6 should probably be --raised-- (as illustrated in Fig. 1, when the support table 14 is raised, the light collecting device 16 is moved closely to the stimulable phosphor sheet S). Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4 and 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayakawa *et al.* (US 6,365,909) in view of Torii (US 4,810,874).

In regard to claims **1** and **9-11**, Hayakawa *et al.* disclose (Figs. 1, 4, and 19) an image information reading apparatus comprising:

(a) a support table (4) for placing thereon a stimulable phosphor sheet (12) with radiation image information recorded therein;

(b) displaceable stimulating light applying means (510, 511, 512, 513) for applying stimulating light to the stimulable phosphor sheet (12);

(c) displaceable light collecting means (514) for collecting light which is emitted from said stimulable phosphor sheet (12) upon exposure to said stimulating light; and

(d) a photoelectric transducer mechanism (514a) for converting the collected light to an electric signal;

the arrangement being such that while said stimulating light applying means (510, 511, 512, 513) is facing and being displaced with respect to said stimulable phosphor sheet (12), said stimulating light applying means (510, 511, 512, 513) applies said stimulating light to said stimulable phosphor sheet (12), and while said light collecting means (514) is being displaced with respect to said stimulable phosphor sheet (12), said light collecting means (514) collects light emitted from said stimulable phosphor sheet (12) and reads radiation image information from the collected light.

The apparatus of Hayakawa *et al.* lacks that the stimulable phosphor sheet housed in a container comprising a container casing having a groove defined therein is exposed to stimulating light when a openably, closably, and removably mounted container lid having a side edge slidably fitted in the groove and a tab projecting from a side edge thereof is opened. However, stimulable phosphor cassettes are well known in the art. For example, Torii teaches (Figs. 1-3) that a stimulable phosphor cassette comprising a lid (3B) having a tab projecting from a side edge thereof and slidably fitted into a container casing (3A), in order to perform read-out without removing the sheet from the cassette so as to minimized scratches and damage (column 2, lines 18-33). Therefore it would have been obvious to one having ordinary skill in the art to provide a lid having a tab and slidably fitted into a container casing as the stimulable phosphor cassette in

the apparatus of Hayakawa *et al.*, in order to perform read-out without removing the sheet from the cassette so as to minimized scratches and damage as taught by Torii.

In regard to claim **4** which is dependent on claim 1, Hayakawa *et al.* also disclose (column 20, line 28 to column 21, line 48) a lifting and lowering mechanism for lifting and lowering said support table (4).

In regard to claim **2** (which is dependent on claim 1) and claim **7** (which is dependent on claim 4), Hayakawa *et al.* also disclose (Figs. 1, 13, and 19) that said stimulating light applying means (510, 511, 512, 513) and said light collecting means (514) are coupled to each other (in image reading section 5) for displacement in unison with each other.

In regard to claim **3** (which is dependent on claim 2) and claim **8** (which is dependent on claim 7), Hayakawa *et al.* also disclose (Figs. 13, 18, and 19) a displacing mechanism for displacing said stimulating light applying means (510, 511, 512, 513) and said light collecting means (514), said displacing mechanism comprising a ball screw (501) operatively connected to said stimulating light applying means (510, 511, 512, 513) and said light collecting means (514) and a motor (502) for rotating said ball screw (501) about its own axis.

4. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayakawa *et al.* (US 6,365,909) in view of Torii (US 4,810,874) as applied to claim 4 above, and further in view of Schneider *et al.* (US 4,965,455).

In regard to claims **5** and **6** which are dependent on claim 4, the modified apparatus of Hayakawa *et al.* lacks that said lifting and lowering mechanism comprises

a plurality of support shafts rotatably mounted on a base and operatively connected to said support table and a plurality of motors for rotating said support shafts respectively about their own axes to lift and lower said support table, and that said motors have respective rotatable shafts with respective worms fitted thereover, said support shafts supporting respective worm gears fitted thereover and held in mesh with said respective worms, whereby said support shafts can be rotated about their own axes by said worms and said worm gears when said motors are energized. However, translation stages are well known in the art. For example, Schneider *et al.* teach (column 5, lines 42-49) that belts, chains, worm drives, or rack drives are functional translation stage equivalents. Therefore it would have been obvious to one having ordinary skill in the art to provide worm drives as the lifting and lowering mechanism in the modified apparatus of Hayakawa *et al.* as functional equivalents to the conveyance belts of Hayakawa *et al.*

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shun Lee whose telephone number is (703) 308-4860. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (703) 308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

CONSTANTINE HANNAHER
PRIMARY EXAMINER
GROUP ART UNIT 2878

SL
September 25, 2003